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Renewable Energy Products

Siemens Microinverter Features and Technical Data

Microinverters with integrated ground

The Siemens Microinverter System improves energy harvest, increases reliability, and dramatically simplifies design, installation and management of solar power systems. The Siemens system includes the Microinverter, Trunk-and-Drop cables, the Envoy Communications Gateway, and the Enlighten monitoring and analysis website.

Productive

- Maximize energy production
- Resilient to dust, debris, and shading
- Performance monitoring per module

Reliable

- System availability greater than 99.8%
- No single point of system failure
- Industry leading warranty, up to 25 years

Simple

- Quick & simple design, installation and management
- 24/7 monitoring and analysis
- No GEC needed for microinverter



SMIINT215R60XX / SMIINT250R60XX

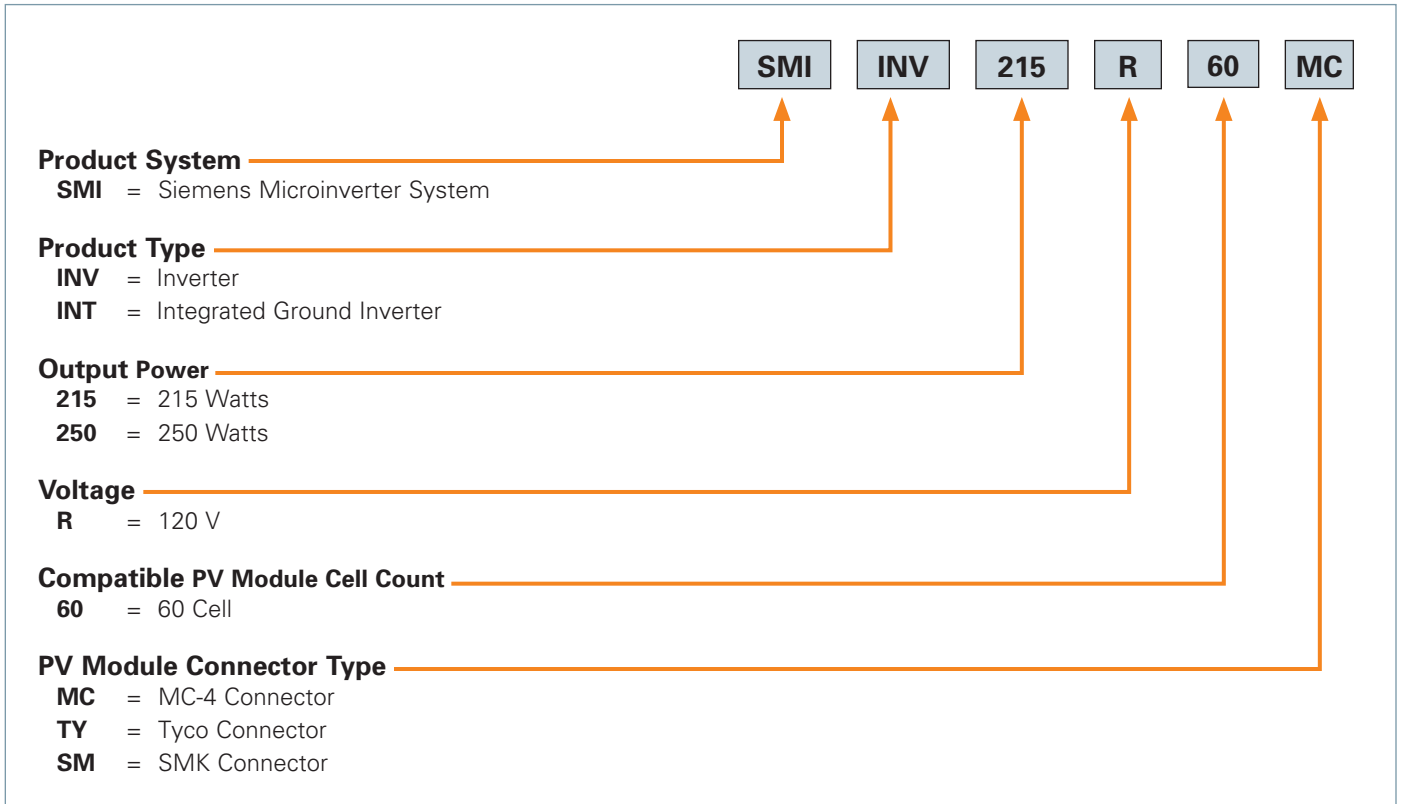
Microinverter technical data

Input Data (DC)	SMIINT215R60XX		SMIINT250R60XX	
Recommended max. input power (STC)	190 - 270 W		210 - 310 W	
Maximum input DC voltage	48 V		48 V	
Peak power tracking range	27 V - 39 V		27 V - 39 V	
Operating range	16 V - 48 V		16 V - 48 V	
Min./Max. start voltage	22 V / 48 V		22 V / 48 V	
Max. DC short circuit current	15 A		15 A	
Max. input current	10 A		9.8 A	
Output Data (AC)	@208 V ac	@240 V ac	@208 V ac	@240 V ac
Maximum output power	225 W	225 W	250 W	250 W
Nominal output current	1.03 A ^①	0.9 A ^①	1.15 A ^①	1.0 A ^①
Rated (continuous) output power	215 W	215 W	240 W	240 W
Nominal voltage / range	208 V / 183 V - 229 V	240 V / 211 V - 264 V	208 V / 183 V - 229 V	240 V / 211 V - 264 V
Nominal frequency / range	60.0 / 57-61 Hz	60.0 / 57-61 Hz	60.0 / 57-61 Hz	60.0 / 57-61 Hz
Extended frequency / range	57-62.5 Hz	57-62.5 Hz	57-62.5 Hz	57-62.5 Hz
Power factor	> 0.95	> 0.95	> 0.95	> 0.95
Maximum units per 20 A branch circuit	25 (three phase)	17 (single phase)	24 (three phase)	16 (single phase)
Maximum output fault current	850 mA _{RMS} , for 6 cycles		850 mA _{RMS} , for 6 cycles; 25.2 A _{peak} , 1.74 ms duration	
①A _{RMS} at nominal voltage				
Efficiency				
CEC weighted efficiency	96.5%		96.5%	
Peak inverter efficiency	96.5%		96.5%	
Static MPPT efficiency (weighted, reference EN50530)	99.4%		99.4%	
Night time power consumption	65 mW max		65 mW max	
Mechanical Data				
Ambient temperature range	-40° C to +65° C		-40° C to +65° C	
Dimensions (W x H x D)	17.1 cm x 17.3 cm x 3.0 cm (6.7" x 6.8" x 1.2") ^②		17.1 cm x 17.3 cm x 3.0 cm (6.7" x 6.8" x 1.2") ^②	
Weight	1.6 kg (3.4 lbs)		1.6 kg (3.4 lbs)	
Cooling	Natural convection - no fans		Natural convection - no fans	
Enclosure environmental rating	Outdoor - NEMA 6		Outdoor - NEMA 6	
②without mounting bracket				
Features				
Compatibility	Pairs with most 60-cell PV modules			
Communication	Power line			

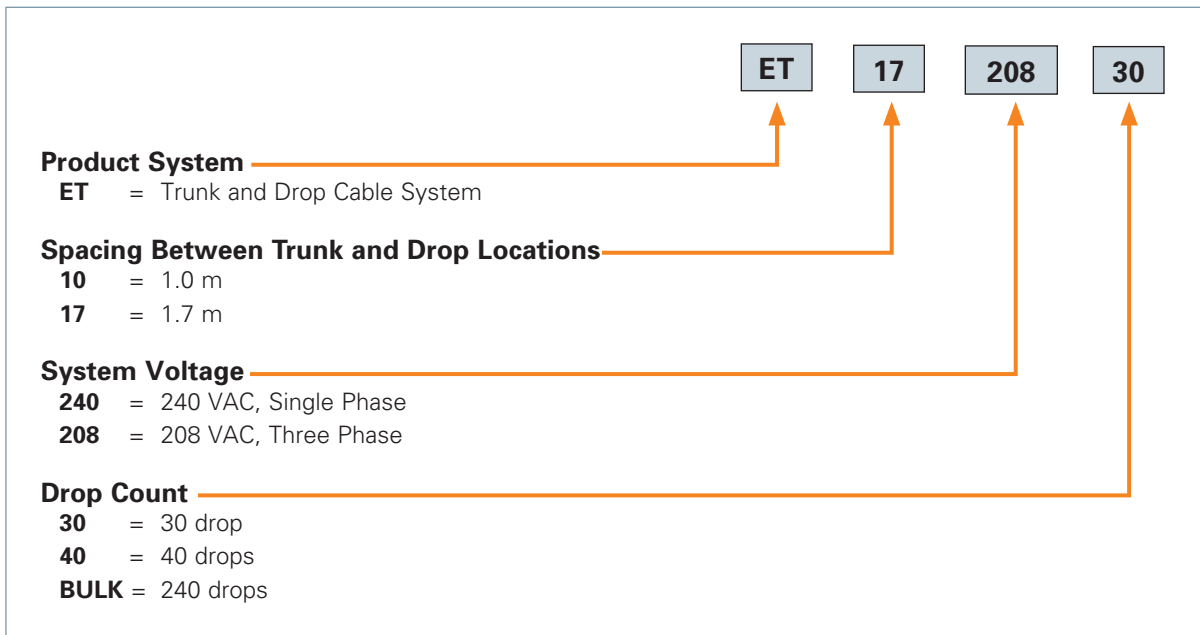
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Catalog Logic

Siemens Microinverter System

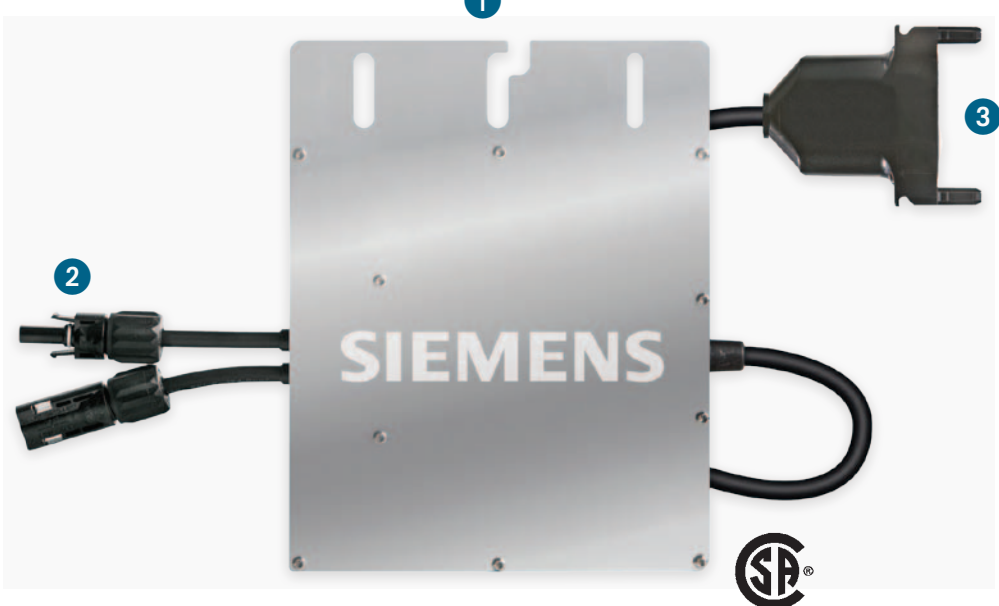


Trunk and Drop Cabling



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Siemens Microinverter System



The image shows a silver Siemens microinverter with the brand name 'SIEMENS' printed on its front. It features three numbered callouts: 1 points to the top mounting tabs, 2 points to the MC or Tyco connector on the left, and 3 points to the AC output cable on the right. A circular logo with 'SP' is visible in the bottom right corner of the image area.

Microinverter Overview

- One Inverter per PV Module
- Mounts to Racking ①
- MC or Tyco Connector ②
- AC out to Trunk-and Drop Cabling ③

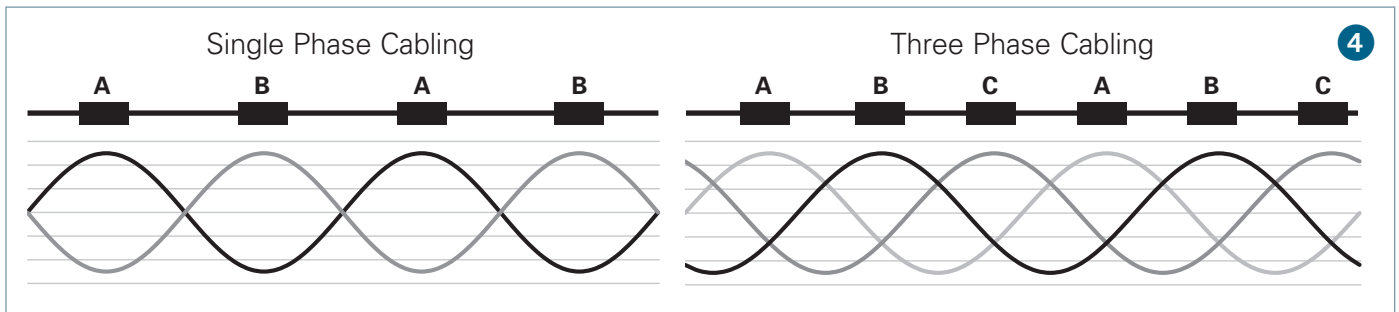
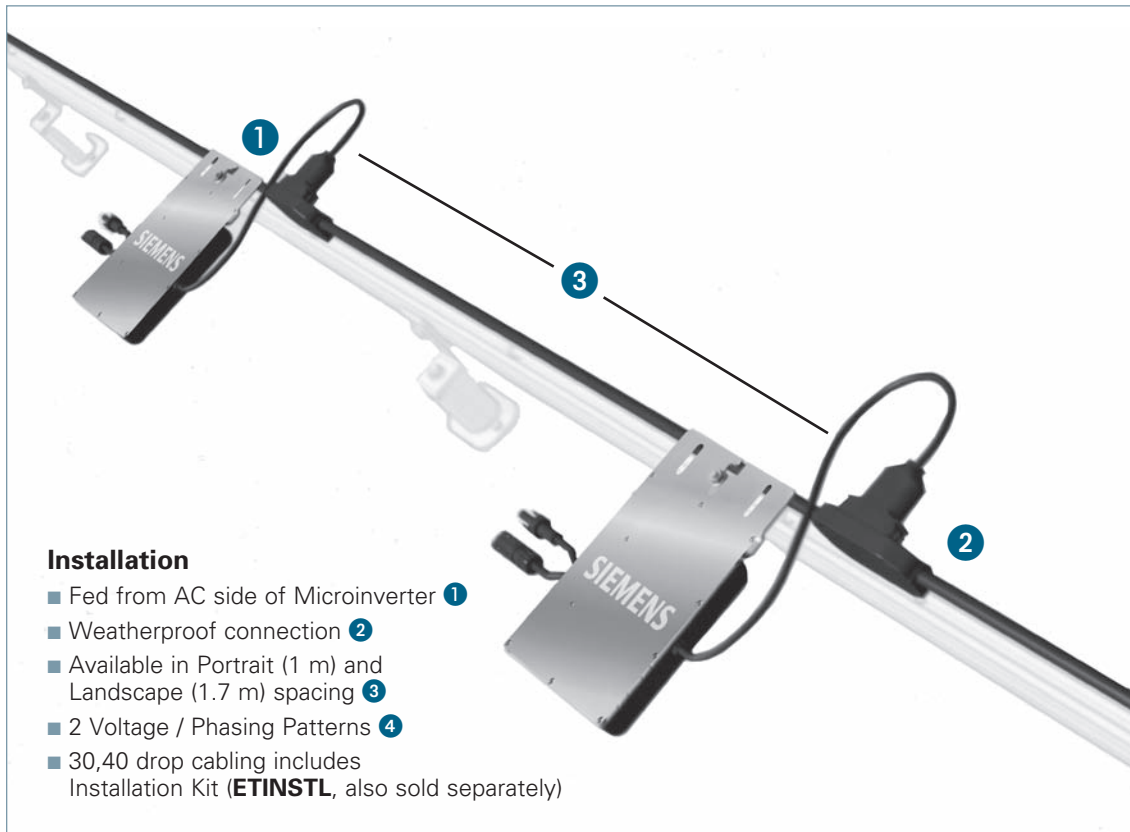
Catalog #	Output (Watts)	Phase Voltage (V)	Connector Type
SMIINT215R60MC	215	120	MC-4
SMIINT250R60MC	250	120	MC-4



MC-4 Connector

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Microinverter Trunk and Drop Cabling



Trunk and Drop Cabling

Catalog #	Cable Type	Length (m)	Voltage Rating (V)	Phase	Number of Drops
ET1024040	Trunk & Drop	1	240	Single	40
ET10240BULK	Trunk & Drop	1	240	Single	240
ET1724040	Trunk & Drop	1.7	240	Single	40
ET17240BULK	Trunk & Drop	1.7	240	Single	240
ET1020830	Trunk & Drop	1	208	Three	30
ET10208BULK	Trunk & Drop	1	208	Three	240
ET1720830	Trunk & Drop	1.7	208	Three	30
ET17208BULK	Trunk & Drop	1.7	208	Three	240

Solar Accessories

Part Number	Description	Order Qty of 1 will Ship Qty below
US2:ETINSTL	Install Kit	1
US2:ETTERM10	Terminator, 5 Pole	10
US2:ETSPLK05	Splice Kit	5
US2:ETDISC05	Disconnect Tool	5
US2:ETSEAL10	IP67 Seal Cap for Splice Box	10
US2:ETCLIP100	Cable Clip	100
US2:ELCF120001	Line Communication Filter, 208/240V	1
US2:EPLC01	Power Line Carrier	2

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Microinverter System Components

Envoy-S

The Siemens Envoy-S communications gateway delivers solar production and energy consumption data to Enphase Enlighten™ monitoring and analysis software for comprehensive, remote maintenance and management of the Siemens Microinverter System.

With revenue grade production metering and consumption monitoring options, Envoy-S is the platform for total energy management and integrates with the Enphase AC Battery

Smart

- Enables web-based monitoring and control
- Bidirectional communications for remote upgrade

Reliable

- Designed for installation indoors or outdoors
- Five-year warranty

Simple

- Easy system configuration using Installer Toolkit mobile app
- Flexible networking with Wi-Fi, Ethernet, or cellular

Safe

- Low voltage DC
- Reduced fire risk



Envoy-S Metered



Envoy-S Standard

Envoy

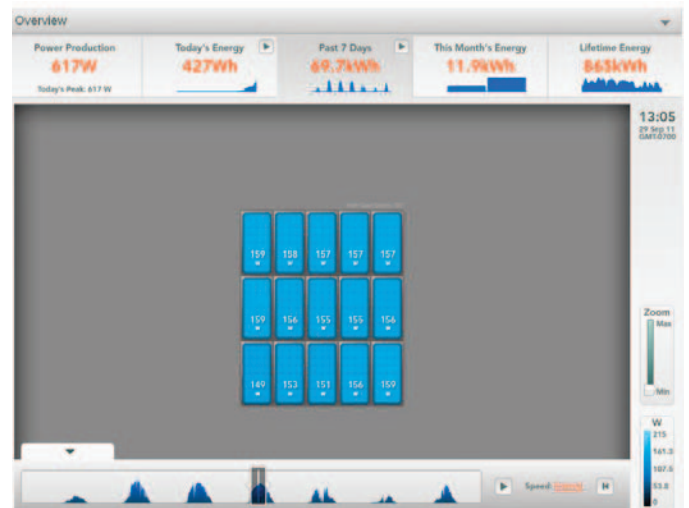
Catalog Numbers	Name	Description
US2:ENVOYS	Envoy-S Standard	Siemens Envoy-S communications gateway with basic PV production monitoring (+/- 5%).
US2:ENVOYSM	Envoy-S Metered	Siemens Envoy-S communications gateway with integrated revenue grade PV production metering (ANSI C12.20 +/- 0.5%) and optional consumption monitoring (+/- 2.5%).

Accessories (Order Separately)

US2:ENPCMOD	Mobile Connect	Plug and play industrial grade cellular modem with five-year data plan for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area.)
US2:ENPCT200S	Consumption Monitoring CT	For use with US2:ENVOYSM, split-core current transformers enable whole home consumption metering (+/- 2.5%).

Enlighten

- Online monitoring service
- Allows for 24/7 monitoring of individual PV modules
- Web and smart phone accessible
- Can mimic roof layout for easy understanding
- Can aggregate over several installs
- Easily troubleshoot faulty modules



Lifetime subscription included with each Envoy

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Microinverter Accessories



Terminator Cap

Part Number: **ETTERM10**
Required for end of each cable run



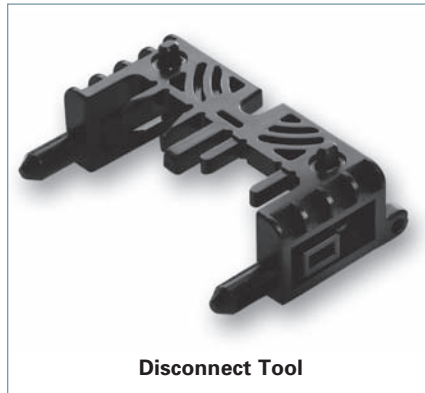
Seal Cap

Part Number: **ETSEAL10**
Used to Fill unused Drop Positions on Trunk Cable



Splice Kit

Part Number: **ETSPLK05**
Used to splice cables



Disconnect Tool

Part Number: **ETDISC05**
Needed to remove Seal Cap

Catalog #	Part Description	Order Multiple
ETINSTL	Installation Kit (4x Terminator Cap, 4x Seal Cap, 1x Disconnect Tool)	1
ETTERM10	Terminator Cap, 5 Pole	10
ETSPLK05	Splice Kit	5
ETDISC05	Disconnect Tool	5
ETSEAL10	Seal Cap for unused drop	10
ETCLIP100	Cable Clip for Trunk and Drop Cables	100

Renewable Energy Products

VersiCharge Features and Benefits

Siemens VersiCharge line offers a variety of residential and semi-public electric car charger options.

Ranging from hardwired models, plug in alternatives, and a Wi-Fi enabled charger. For higher volume areas like apartments, townhomes, parking lots, applications where a wall isn't available, or pedestal mount is preferred, there is a stationary post to mount the VersiCharge onto.

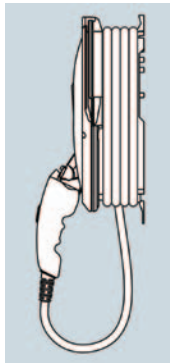


Easy, 2 Button Controls

- Indicating Halo for easy status check
- Left Button stops and restarts charging
- Right Button sets 2, 4, 6, or 8 hour Charge Delay
- LED Indicators for each

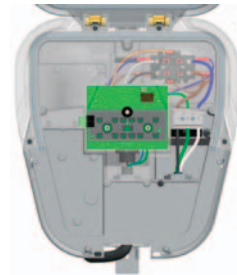
Cord Management

- Enclosure is designed for cord to be looped when not in use
- Built in J-Plug Holster stores and protects plug from weather, debris, and damage
- All VersiCharge units come with long flexible cord for easy charging



Load Control Compatible

- Inputs to remotely turn unit on or off
- Allows for control by home automation system or utility company



Hinged Lid for Speed and Ease

- Hinged cover stays in place for easy maintenance
- No components in cover mean no risk of damage
- Ample spacing to work inside device
- One hand open / close
- Cover uses only 4 screws compared to up to 12 for competitors



NEMA 4 Rated Enclosure

- Rated for direct water spray by sprinklers, hoses, or any weather
- ~50% recycled plastic content
- Glass impregnated plastic for strength and fire safety

Adjustable Amperage

- Allows for changing charge rate to accommodate demand response signals, for customer preference, circuit capability and car charging rate capacity

Smart Grid Capabilities

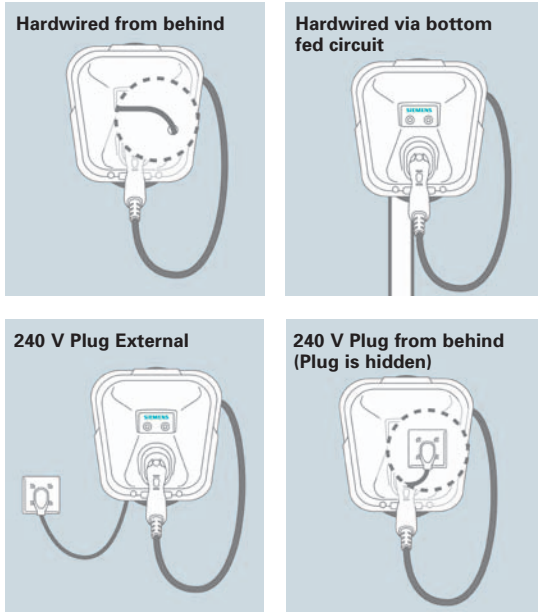
- The VersiCharge SG unit comes with the same standard hardware as the VC30GRYU but with the added benefit of Wi-Fi and a CTA2045 module to enable communication through the Siemens Cloud.
- Monitor and control charging status, charging schedule, and power level remotely through the VersiCharge SG SmartPhone App or via provided web pages
- Built in metering captures real time power usage data for easy to understand metrics



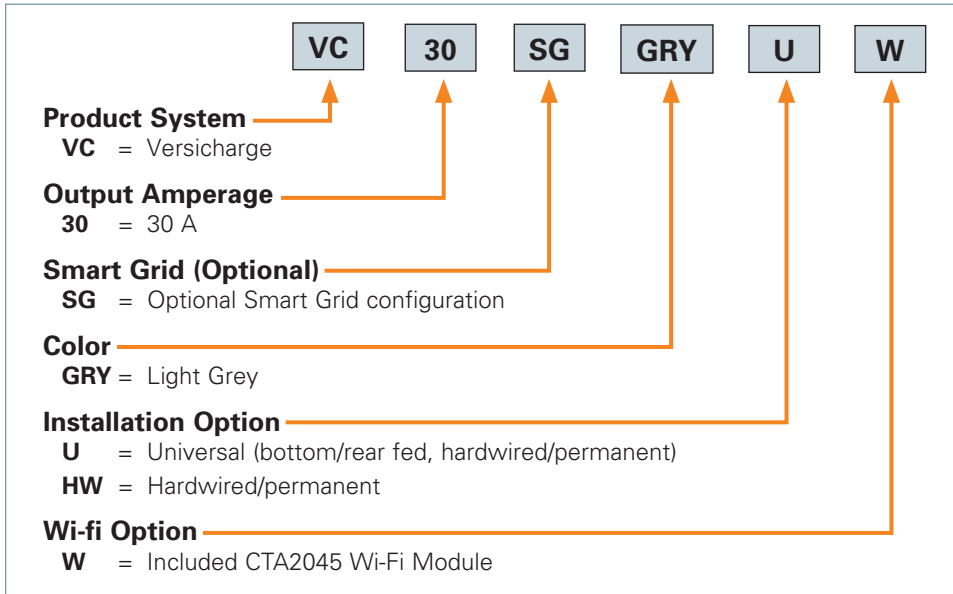
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VersiCharge EVSE and Accessories

Flexible Install Options



Electric Vehicle Supply Equipment



VersiCharge electric vehicle chargers

Part number	Model	Output amperage	Color	Feeder Location
VC30GRYU	Universal VersiCharge	30A	Grey	Rear/Bottom/Hardwired
VC30GRYHW	Hardwired VersiCharge	30A	Grey	Hardwired
VCSG30GRYUW	Wi-Fi VersiCharge	30A	Grey	Rear/Bottom/Hardwired

Accessories

Part number	Description	Color
VCMNTGBRK	Spare parts mounting bracket	Black
VCPOSTGRY	Outdoor mounting post	Grey

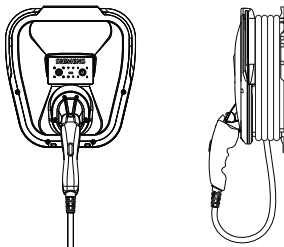
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VersiCharge Technical Features

Technical Features

	Attribute	Hardwired Model	Universal Model	Wi-Fi Model with option to customize module	Wi-Fi Model with included module
Essentials	Part Number	VC30GRYHW	VC30GRYU	VCSG30GRYU	VCSG30GRYUW
	Input voltage	208 - 240 VAC			
	Output Amperage	30 Amps			
	Output power	1.8 kW to 7.2 kW			
	Standby Power	Less than 6 Watts	Less than 9 Watts		
	Cord length	14 ft.	20 ft.		
	Wall weight	12.5 lbs.	14.5 lbs.		
	Dimensions	14.5"W x 16.0"H x 6.5"D			
	Enclosure	NEMA 1	NEMA 4		
	Plug in installation	No	Yes (below or behind unit)		
	Permanent installation	Yes			
	Communication hardware		N/A	CTA2045 Interface without communication module	CTA2045 Interface with communication module
	Network connection		N/A	Optional	Wi-Fi
	Radio		N/A	Optional	High Performing 2.4 GHz IEEE 802.11 b/g/n
	Connectivity		N/A	Communicated to vendor specific cloud	Communicated through local wireless network to VersiCharge SG Cloud
	Metering accuracy		N/A	+/- 0.5% standard (custom precision variant available)	
	Reporting parameters		N/A	Power consumption, status, events	
Demand response compatible		Yes, with accessory	Yes, with appropriate communications module	Yes, with Opt-in	
Electrical	Circuit requirement	40 Amperes*		40 Amperes**	
	Infrastructure Plug	NEMA 6-50			
	Input power connections	Line 1, Line 2, Earth Ground			
	Recommended branch break	40 Ampere double pole (Siemens: Q240 plug in type, B240 bolt on type)			
Mechanical Safety and Operational	Connector	SAE J1772			
	Standards compliance	UL, SAE J1772, NEC® 625			
	EMC	FCC Part 15 Class B			
	Operating temperature	-30°C to +50°C			
	Storage temperature	-40°C to +60°C			
	Operating humidity	Maximum 95% non-condensing			
	Ground fault detection	5 mA CCID with auto retry			
Electric Vehicles Tested	Vehicles	BMW i3, BMW i8, Ford Focus Electric, Nissan Leaf, Mercedes B Class, Fiat 500e, GM Volt			

Wall Mounted EVSE



14.5" W x 16.0" H x 6.5" D
(front of unit excluding connector) 15" minimum clearance recommended for connector when inserted.

Mounting Bracket

included with every Siemens VersiCharge



2.5" x 16.9"
Install at a minimum of 18" off the ground

Outdoor Mounting Post

tamper resistant hardware kit included

